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241 wet season throughout the Northern Territory. On the Mount Lamington
[132] foothills, the dry season is comparatively short and somewhat undependable, but it is usually over by the beginning of September. Here cultivators must be sure to have enough dry weather for a successful burn prior to planting. 'A significant proportion of the mineral energy upon which swidden cultivates draw for their growth comes from the ash remains of the fired forest, so that the completeness with which a plot is burnt is a crucial factor in determining its yield, a fact of which probably all swidden cultivators are aware.' (Geertz 1966: 22–3) Furthermore, it is unwise to leave the burn until too late in the dry season, for if the soil has dried out (which it does quickly in the tropics), taro plants develop few shoots, so that the gardener may be short of shoots for planting out. Hence, I was told, a very substantial amount of clearing and planting needs to be done between June and August. There is thus a flush of produce nine or ten months later, i.e. from April to June. The same rhythm also applies in drier areas, nearer the coast, such as Inonda, because there the danger of the soil drying out is even greater and the dry season much longer. When we find that the principal Orokaiva feasting season is from April to June, we can see that this is ecologically determined, as it is then that taro is most plentiful.[5]

243 While most subsidiary crops are grown in the taro garden, it is a fixed rule
476 that taro and yam should never be grown together. While taro is usually grown by individual households, yams are planted and harvested by co-operative groups, around the same time as the main taro planting and harvest, but yams are usually stored for several months until the next dry season. Yam houses are built in yam gardens and used for the storage of no other crop.

245 *Arboriculture.* Although the Orokaiva traditionally planted coconut, betel-
249 nut and a few other trees in gardens, villages and in the bush, their arboriculture
177 used to be rudimentary in comparison to their precise and detailed attention to tubers, especially taro. The Australian authorities had hardly established
473 themselves in Papua before they began to press the population into extensive arboriculture that would yield a cash income. One of the early 'native regulations' (No. 121, passed in 1903), compelled all Papuan villages to grow a stipulated number of rubber trees. Three such rubber stands were established at Sivepe, ranging from one half to three acres in area, all village men supposedly sharing in the work. Rimoldi (1966: 86–93), who describes in detail the vicissitudes of exploitation of these trees, shows how ill-adapted communal rubber stands are to a society lacking institutions for the distribution of corporate assets to its members. Nonetheless, a further stand was established, this time quite voluntarily, in 1964. They are known as the 'company trees', have not yielded any cash, and will be discussed in detail below as the land transactions involved cast light on the ideology of contemporary Orokaiva co-operative movements.

245 'Communal' village plantations for coffee were established in the Northern
473 District under the same regulations as applied to rubber, but all producing trees in the villages I visited had been grown on quasi-individual holdings. First plantings were around 1955. On a rough estimate I would say that the number of trees in Sivepe and Hohorita, two villages on the foothills, were 3,500 and 15,000, while Inonda, on alluvial plains, had 800. Coffee is one crop that

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actually has provided the Orokaiva with a reliable and substantial cash income for some years. This is true to a very minor extent for the third cash crop promoted on a major scale, copra, which was grown especially near the coast. The coffee is processed and sent to a co-operative factory as parchment, for which purpose many villages own one or more hullers. Copra is supposed to be dried in driers built in the villages, but the one I saw in Inonda had broken down and seems unlikely to be repaired.

Clothing. The traditional Orokaiva costume was a skirt for women and a perineal band for men (Williams 1930: 32–4). Boys went naked until some time before puberty, girls until after puberty seclusion. These garments were made of barkcloth obtained from trees which were mostly grown in gardens for this purpose. Larger garments were used for wrapping round the shoulders in cold weather, and also for shrouds. This mode of dress was abandoned in the 1950s, so that today the Orokaiva buy their clothes almost entirely from trade stores and at mission bazaars. Traditional dress is used for dances, initiation ceremonies and other special occasions. For this reason bark-cloth trees (such as the *ajimo*) are found rather infrequently in gardens today. Bark-cloth is still being painted with decorations in traditional style and with a mixture of traditional and trade dyes.

Housing. Villages are in flat clearings where the grass is kept scrupulously cut and from which the women regularly sweep away rubbish. Houses (*bande*) are built in two facing rows, each house normally being occupied by one nuclear family. The roof of sago thatch slopes down from a central ridgepole. Wall construction has been in various styles since Australian contact, but today vertically set sago-branch midribs are becoming old fashioned in some areas and vertically laid shingles, about 6 ft. by 5⅜ ins., are being adopted in villages desiring to show they are tuned in to modern life. A great number of tree species must be used for the various parts of the house. Materials are taken as much as possible from reverted gardens which contain small trees. For a number of purposes large trees with trunks of high-quality slow-growing wood are considered essential. These trees have to be obtained from areas of bush much older than the usual reverted gardens. On the Mount Lamington foothills, such areas are very scarce. Trees of this quality tend to be the subject of gift exchange as between families, a subject to be discussed below.

Though it is each man's responsibility to build his own house, it is usual to call on helpers, especially sons, brothers and brothers-in-law, to help with construction. Recent changes in house construction include the increasing use of nails, though not for flooring; a remarkable increase in house sizes; the change in wall construction already mentioned, and a number of measures to 'improve' hygiene: lavatories, rubbish holes, pens for chickens, windows. The windows, an innovation promoted by the government to combat tuberculosis, are considered too uncomfortable in cold, wind or rain. Accordingly, they are always covered over with pieces of timber which can be removed if the patrol officer insists.[6]

Bachelors' houses (*oro*) are of precisely the same size and construction as the ordinary *bande*. The more prominent men of the village build themselves small meeting platforms, covered with a roof but lacking walls, for the entertainment of visitors (*arara*). In the gardens, we find small houses with an earth floor, no walls, but a platform just below roof level. People sit in these garden houses

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movements were more extravagant and exciting than those of the others; they were allowed, and did, break out of line for extra flourishes that took their fancy while still remaining true to the spirit of each type of dance. A notable feature of the dances is the identification with spirits and animals on the part of the dancers. Mistakes in drumming and dancing are thought very inauspicious for the well-being of the community. Although men and women do not dance as partners, the dances give men a chance to show off their attractions, while the women give signs to men who impress them.

3. *Economics*

Production. The Orokaiva work force involves, in some ways, everybody from the age he can walk almost until the day of death. The very young and the very old are expected to make whatever contribution they are capable of. The division of labour between the sexes has been the subject of enquiry by Williams, Waddell and Krinks. A sex basis in the division of labour is obvious in a great many activities, as the charts clearly show.[7] But even where activities are 'shared' between men and women, it is most common to see each sex group work at a different aspect of the task; they rarely do exactly the same job. Calculations by Waddell and Krinks show that the Orokaiva are fairly fully occupied in terms of the number of weekly working hours. Their calculations suggest that, given the present technology and social organisation, there is comparatively little slack in the working week that could be taken up by cash cropping activities on a major scale.

The working group is most frequently the household, occupied in the *pure*. Sometimes close relatives work together on larger tasks, helping each other in turn. Although old men do maintain their own gardens, they tend to receive frequent help from sons, sons-in-law and sometimes sisters' sons. Co-operation between men is also common during hunting and housebuilding. Co-operative groups of five or more men or women are also seen occasionally, e.g. for making roofing for a house, planting and harvesting yams. Co-operation of a total village is rare, but there are co-operative fishing and hunting expeditions. Activities related to feasting tend to be communal also.

Distribution. The Orokaiva have a subsistence economy where the bulk of goods produced are consumed by the household of the producer. Though patterns of exchange will take up a good part of the present work, it is necessary to state at the outset that only a small percentage of everyday produce enters the exchange system in any way. Waddell estimates that only 4.1 per cent of taro produced in Sivepe is disposed of by sale, gift exchange or barter. While the proportion is twice as high in Inonda, this is due to quite recent changes in the economic network in that area. One is bound to agree with Waddell that food exchanges, whatever their economic utility, are no great drain on Orokaiva resources. Of the produce entering the exchange network only a minute proportion leaves the village where it is grown. At a comparatively large feast I saw in Inonda in 1967, I estimated that Inonda was giving away, at the very utmost, 5 per cent of its annual production. As plantings are always made on a scale sufficient for survival *even if the harvest is poor*, there will be a surplus of at least 5 per cent after a good growing season. Unless the growing season is good,

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431 824 1. The recipient's household was receiving a guest from a different village, or a family member returning after a period of absence. In such a case, the guest would invariably be specified as the recipient of the gift. Informants would also say that they were 'helping' the host household.

[946] 2. A woman in the recipient's household had just had a baby. In such a case the woman herself was forbidden to go to her garden (*post partum* taboo) so she had to be helped by others who would bring her food.

[464] 3. After any death in a household, food would be brought by women from a number of households, again because death places a taboo upon the garden of the bereaved family.

There were also certain stereotyped situations where people felt they must make gifts of taro, but where no special ceremony was necessary. Here the food was often sent through the donor's children:

[476] [621] 4. The recipient had performed some service for the donor's household during the day. The gift in such cases was not really a payment for services rendered, though sometimes it was explained to me that so-and-so was sent some food because he had been unable to do his garden that day: he had spent the day helping the donor. Such an explanation was always unsatisfactory because the man's wife had usually gone to the garden. Also, it would be very wrong to suppose that there was something like a free labour market and that a day's work could be purchased for a meal. It is better to assume that the two households were on an intimate footing, were in the habit of sending each other food occasionally, and that such gifts never signified more than a confirmation of the warm feelings existing between them. When a man had just been helping the donor household, such an affirmation of warm feelings would be especially appropriate.

[736] 5. The recipient was too old to grow for himself all the food he needed. In such a case he or she rarely moved into the household of a younger couple. There are actually a number of strict rules which make such an arrangement most uncomfortable for Orokaiva. For instance, spouses are not allowed to quarrel in the presence of a parent or an affine. Until an elderly person becomes very sick, he or she lives in a separate house, but cooked food is sent to that house regularly by one or more women who look after the old person.

6. Food was also sent, as a matter of common obligation, to the house of a person who was sick or disabled.

[621] These cases by no means exhaust the occasions when taro gifts were made. There were, in addition, certain households with which relations were so close that food was sent over several times a week, even in the absence of any particular reason. One might say that such households lived in a state of semi-commensality. Though they each ate in or in front of their own houses, they tended to spend the evenings together sitting and chatting around the same fire. In the mornings they would sit together before going to their gardens.

824 431 621 437 The proper form in which to present taro in all the cases discussed so far was without the taro tops, cut up, cooked and ready for eating. These gifts signified no more than a simple extension of commensality from the mostly nuclear

241 rodent attack. A hardwood planting stick (ti) is used to loosen the soil, though occasionally shovels are used to make mounds for sweet potato runners and tubers, or for yams. Sugar cane and pitpit are planted either in clumps of suckers or in lengths or 3 nodes but bananas are propagated only from suckers.

Maize, cucurbits and tobacco are planted before or with the main crop of taro. They usually grow best near stumps or logs, perhaps because they benefit from extra potash and humus.[1] Tobacco seeds are thrown near stumps and when seedlings are about 6 inches high they are transplanted throughout the garden. Numerous varieties of taro (Colocasia spp.), distinguished by their colour and stem and leaf shape, are propagated by suckers. The suckers are placed in holes 6-8 inches deep and spaced about 2 feet apart. A small amount of Xanthosoma taro is planted, usually on sloping ground, and not necessarily in the main gardens. Yams are planted in separate areas if planting material is plentiful. Otherwise they are planted at random through the garden. Two common varieties are recognized.

Sweet potato is grown only in small quantities as a supplementary diet to the taro. If it is planted among the taro, the planting is delayed until the taro is suckering. Small plots are often made in a taro garden after most of the taro has been extracted. Minor crops found in the gardens are cabbage, manioc, beans, tomatoes, ginger, shallots, pineapple and pawpaws. (Table 1.)

Gardens are usually weeded 3 times. Weed infestation becomes too heavy to handle at this stage, but crops are mature enough to compete successfully and shade from the weeds is claimed to benefit the taro.

417 [136] Fencing is not as extensive or elaborate as in many Orokaiva areas, due to a scarcity of wild pigs. Gardens are usually made on sites at a distance from the village which is considered too far for domestic pigs to wander. Despite this precaution, 2 men had their gardens spoiled by village pigs just before our visit.

Fences are raised to a height of about 4 feet by piling logs horizontally on a broad base and securing them with perpendicular stakes. In most cases the fence is erected only on the garden border which is considered most accessible to pigs. This is often done after the area has been planted. The barrier may be extended later if another side is found to need protection.

[241] [476] A virtual absence of wild pigs is partly responsible for the tendency for the gardens to be scattered. In other parts of

[1] Cf. Vicary 1960:188.

241 476 417

Orokaiva territory where more effort is devoted to fence construction it is more common for the members of a village or a local patrilineal group to cultivate contiguous plots and to co-operate in the construction of one fence to protect several gardens. This reduces the total labour required for the task.

Table 1

Food plants per household*

Crop	Average	Range
Taro (Col)	0.97 acres	0.39 - 2.30 acres
Sweet potato	0.07 acres	0 - 0.20 acres
Corn	223 plants	0 - 442 plants
Bananas	71 trees	35 - 126 trees
Pitpit	88 clumps	0 - 400 clumps
Sugar	34 stools	11 - 54 stools
Yams	65 vines	0 - 136 vines
Taro (Xanthosoma)	28 plants	0 - 91 plants
Native cabbage	22 plants	0 - 100 plants
Pawpaw	17 trees	5 - 32 trees
Beans	17 plants	0 - 110 plants
Cucurbits	13 vines	9 - 28 vines
Shallots)		
Manioc)	a few plants	
Ginger)		
Tobacco	18 plants	0 - 59 plants

*12 households.

On the other hand, a total of 1 acre of taro planted in scattered plots involves more clearing than the same area planted in a continuous block of gardens. Several gardens in 1 block would have a smaller total perimeter adjoining the bush where there is usually a margin of cleared land which is never planted. The dispersal of garden sites facilitates natural reseeding of fallow land from the surrounding bush.[1]

It is difficult to arrive at an average figure for the length of the cultivation - bush fallow cycle. One particular difficulty is the fact that the clearing of a plot is often done progressively. As one section of the garden plot is cleared by a household, it is planted and then adjoining sections are cleared and planted. In some but not all cases the successive areas may then be allocated to different members in the household, such as a woman - a married sister or a brother's wife - whose husband is absent. Since few vegetables can be stored for long, this method of clearing the

[1] Conklin 1957:145.

461 recorded every afternoon, when each able-bodied adult was asked
125 how he had distributed his working hours. Of the population of 50, 25 were able-bodied persons over the age of 16.[1] These fall into 2 distinct categories according to age. Seven householders are between the ages of 45 and 65 years, and the other 5 between 25 and 35 years of age. There were no younger men or boys over 15 years in the village. Five of the women were aged 45 or more, 5 were between 25 and 30, and 3 younger women whose husbands were absent in employment, were staying with their kin in the village. One Jegase woman was a total cripple.

857 Nine of the 24 children attend school and 11 are 5 years of age
[871] or under. The rest, 2 boys and 2 girls in the 10-15 age group gave only intermittent assistance in garden work. The boys would often go hunting but were not engaged in productive work as regularly as their elders. The girls had a relatively heavy schedule of domestic chores.

592 The household containing a nuclear family is the basic unit of production and consumption. Members of an expanded family usually make their gardens on adjacent plots and the men usually co-operate in the heavier clearing work. Its members usually travel together
[462] to their gardens, but each household then cultivates its garden alone. Apart from the harvesting, which is the task of women, the division of labour between sexes in gardening activities seems to be flexible in each household. Women assist in clearing undergrowth for new gardens and men join them in planting and weeding. It will be seen from Table 4 that men spent nearly as much time as the women in subsistence gardening during our survey. A

342 House-building is carried out generally by the householder and
476 any adult sons, with only occasional assistance from a neighbour
[462] or another kinsman. Wives sometimes help to prepare materials such as sago thatch for the roof.

[824] Larger work-groups than these are seldom mobilized for subsis-
[461] tence activities.[2] One or 2 men can readily clear enough secondary growth for their own needs and little co-operation is

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[1] Included among these were 1 man whose activity was restricted by tuberculosis, and another very old man. However, both maintained their own gardens.

[2] E. Waddell (personal communication) suggests that assistance with house-building is not 'occasional' but 'considerable' especially with making roofs; he also points out that large work-groups are assembled for harvesting yams (which do not need to be left in the ground for storage). Neither type of co-operation was in evidence during our short survey of work patterns.

A. [See Category 461, p. 28--Analyst]

342 required to build the short pig fence protecting the average
[476] garden. A house is replaced by intermittent work on construction over a period of several weeks.

476 Co-operation with households outside the expanded family is usually on the basis of assistance given for a day or two by an individual to fulfil some kinship obligation or to help a neighbour who is sick. Any assistance a man receives usually comes from individual kin rather than a working party composed of
614 his agnates. This may be because Sivepe is one example of the type of Melanesian societies where clans or their segments are small and communities composed of several, permitting local endogamy and co-operation with local kin and affines dilutes the strength of the unilineal group (Brown 1962:68).

461 The work patterns we recorded are summarized in Table 4. The
[164] figure for the time taken up by sickness (including caring for the sick) was affected by the facts that during the survey 2 householders suffered from lengthy bouts of malaria (1 was hospitalized) and that some women needed to attend to their sick children; the figure for travel was affected by the absence for several days of 1 householder and his wife who walked to Popondetta where they had business at the District Office.

132 The extreme weather conditions experienced during our survey -
461 26.3 inches of rain in 1 month with 25 wet days followed by a long period without rain - restricted both the range of subsistence activities possible and to some extent the time available for them.
[797] The amount of time devoted to subsistence and cash crop gardening was appreciably lower during each of 3 weeks which were marked by the celebration of non-traditional festivals. Several villagers were among a group of 100 people baptized as Anglicans at Sasembata Mission.

795 During the week this occurred the women of the sample devoted
461 more time to preparing for and attending the ritual than to economic activities. The men also spent more time than usual in the village, several of them building or repairing houses. Most of the men spent several hours watching the baptism itself. Although the baptism differed from the life-crises traditionally celebrated by feasts, a number of small independent gatherings to mark the transition were held afterwards in the village by the close kin of those baptized.

796 Religious observances were accorded a little more time during
461 the week of Christmas than in normal weeks. There were no festivities within the village to mark the occasion and church attendance was the only organized Christmas celebration except for ceremonial at Saiho which a few Sivepe people attended on
461 Boxing Day. Several people were disabled by attacks of malaria at the time but few of the others considered these 2 days as

614 clan branch claim that in the years before contact Jegase men extended their control over areas of land northward from this area toward the territory of the hostile Togahau and Divinikovari. They claim that this expansion was restricted by pressure from enemies but it is difficult to determine how often open conflicts preceded settlement in these outlying areas or how much it was limited rather by expansion of descent groups within the tribe or of other local groups.

The pattern of fragmented landholdings of local clan branches is said to be due to the fact that members of allied clans would move into an area of unoccupied land about the same time to clear contiguous areas. Any descent group which later found its holding no longer adequate for immediate needs and wished to open up new land would often find the surrounding land already settled and would move to the edge of the area so far appropriated as gardening land by the members of these groups. The explanation sometimes given for the existence of an enclave of one clan branch's land within another's is that a Jegase man, for instance, had lived with the Seho people holding the larger area and had cleared virgin land near them.

[476] The men exploiting new land often worked in association with some of their co-resident clansmen but the apparent lack of regular co-operation between members of patrilineal groups larger than the expanded family in opening up unoccupied land may account for some of the present scattering of clan branch land or even of the areas occupied by separate branches of 1 clan.[1]

[425] Informants stated that the initiative in establishing rights to previously unoccupied land was taken by individual cultivators and that the land which they acquired was retained by their lineal descendants.

[613] Some people suggested in answer to our questions that subdivision and further fragmentation of areas of Jegase territory, now identified with one or other of the lineages, occurred where large numbers in successive generations settled within, and made more extensive use of, one after another of the areas where an ancestor had been first to claim land or had at some stage effectively occupied it.

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[1] Norton (1962:6) gives a similar explanation of fragmentation and suggests that it occurred more often after the extension of administration control when the co-operation between members of separate clans formerly residing together for mutual protection was carried over into the activity of opening up areas further afield from their village.

621 with some of their co-residents; nevertheless, common residence
614 implies some community of interest and a degree of group solidarity
that is reinforced by Administration and mission policies which
recognise villages rather than descent groups as functional
[431] entities.[1] Marriages between members of the different clan
[476] branches within the village reinforce this solidarity, which is
expressed in such ways as daily food gifts, co-operation in certain
tasks, and joint ceremonial activities.

(b) Social organisation[2]

614 (i) Descent. Every Orokaiva is recruited by birth into the
[611] clan of his or her father. All members of a clan claim, but cannot
necessarily trace, common descent from a usually eponymous ancestor.
[613] Each clan is subdivided into named sub-groups or lineages which
trace their origin to a named ancestor.[3] A lineage comprises, on
average, three households. Usually several clans are represented
in a single village, members of a single clan (clan branches) being
scattered among a number of neighbouring villages. Lineages are
much more localised in character, frequently being confined to a
single village and tending to occupy one section of it.

[622] (ii) Leadership. The Orokaiva social system incorporates no
central authority or hereditary leadership. Instead, it is
[554] characterised by 'big men' (embo dombo) and an ascendency of
elders who have proved themselves equal to the task. Such men
command the respect of the community - based upon observed qualities
of generosity, diligence, wealth, ability to make wise decisions and
skill in arranging ceremonial activities - but it confers no sanc-
tions.

571 (iii) Residence. Post-marital residence is ideally patrivirilocal,
but in practice people have a wide choice between the village of
patrilateral or matrilateral kin or of affines, and it may be
[592] changed at any time. The composition of individual households
[594] within the village likewise varies, although the basis is generally
the nuclear family. The distribution of clan branches through a
[614] number of villages is closely related to access to the group's
[166] land; hence initial motivation for a long-term change in residence

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[1] Cf. comments by Belshaw (1964:277) on villages and descent groups vis-à-vis government policy in Fiji.

[2] For a fuller account see Rimoldi 1966:29-75.

[3] Genealogical depth is slight, descent rarely being traced to an ancestor more remote than the grandfathers of the oldest men.

433 [184] settlements have access to garden land, hunting and foraging areas and creeks but there are considerable variations in availability of these resources, and others such as fish and potting clay. These variations are expressed in the relative significance of the different elements in the work and exchange patterns of different communities.

592 Within the community, the household is the principal economic unit, aiming at self-sufficiency in terms of procuring food, shelter, clothing and production equipment.[1] Thus, gardens are the responsibility of individual households, and the work group for any activity, including clearing and harvesting, seldom exceeds its adult members. [438] Each household produces its own digging-sticks, spears, building materials, sleeping-mats, etc., but axes, bush knives, cooking utensils and clothing are usually obtained from trade stores. [476] For most phases of production co-operation between households is of little importance.

241 A household may maintain between one and five gardens, three being the mean. These average 0.3 acres in size and are generally between five and twenty-five minutes' walk from the village. In some areas, including Inonda and the Yega area, it has recently become popular to plant kitchen gardens adjacent to the houses, often containing manioc, sweet potato, cucurbits, pineapple and even taro. Banana, coconut, breadfruit and '<u>hingi</u>' (betel pepper) trees are often planted at random around the periphery of the village and in the village square.

The process of garden preparation has been described in the articles cited above.[2] When all but the largest trees have been felled, most of the debris is burned and the remainder piled around the tree stumps. There is no preparation of the soil and crops are planted with the aid of a digging-stick. Gardens are weeded regularly in the early stages, but less frequently as they approach maturity. [417] In the less densely settled areas where wild pigs are common, such as Inonda, most gardens need to be fenced; when [136] separate households have contiguous gardens they usually fence them simultaneously and help each other in this more often than in any other garden task.

[262] The staple food plant of the Orokaiva is taro (<u>Colocasia</u>) and comparatively small areas are planted with the subsidiary root crops of sweet potato, yams, 'German' taro (<u>Xanthosoma</u>) and manioc. Interplanted with the ground crops are large herbs and trees, such as

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[1] Exceptions occur in the case of the elderly or infirm, who are often supported by an offspring's household, and so frequently live in a house adjacent to one or more of them (see Map 4). A A

[2] See p.23.

A, [See Category 102, p. 38--Analyst]

461 The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. Thus, while the activity day is reasonably long there is immediate scope for improving efficiency at this level, and the interest currently being shown in land tenure conversion among the Orokaiva, plus the distinctive time and motion patterns of the cash croppers and younger householders possibly reflect some realisation of this.

The nature and size of work groups

[181] [592] Both Keesing (1952:19) and Reay (1953:111) have remarked upon the highly individualistic nature of the Orokaiva and this trait is clearly reflected in their work patterns. The household, comprising a nuclear family, is the basic unit of production and consumption[1] yet seldom do all its members work together on a single task. The pattern is rather for individuals to perform distinct but mutually compatible tasks at the same location. In one such case, where the four adult members of a household spent a six-hour period together in the same garden, the following allocation of work and sequence was observed:

[462]

Husband and son - clearing bush
Wife and daughter - weeding taro
Wife - collecting taro tops (for planting)
Son - planting taro
Wife - collecting sweet potato (for consumption)
Husband - collecting yams (for consumption)

Likewise, members of an expanded family frequently travel together to and from their separate, but adjoining, gardens and perform similar tasks within their respective areas.

In Table 6:13 work groups are defined narrowly, in terms of individuals performing the same task together at the same site, and as such they are normally seen to comprise less than two adults. [476] The main exceptions are activities where collaboration is specifically

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[1] Only 9 per cent of all activity time is rendered in the form of labour services to other households. Nevertheless, the daily distribution of food is an important facet of Orokaiva life, and its scale contradicts to some extent these individualistic notions, suggesting that communalism is reflected by exchange rather than co-operative effort. See Part III for an analysis of the exchange system.

[TEXT CONTINUED ON PAGE 116]

8: Waddell & Krinks E-4,5 (1964-1965) 1968 OJ23 Orokaiva OJ23

[461] required, in particular sago-making and house construction.[1] In the case of the former about eighty man-hours per day should be [476] expended on a mature tree if the sago is to be produced before spoiling,[2] while in the latter assistance is specifically needed to erect the timber frame and put the roof in place.

Some social significance can probably be ascribed to other activities with a mean size of work group exceeding 2.0 persons. This applies particularly to the preparation of roofing sections and to fishing, both of which have an important recreational component either in the form of conversation or 'picnicking'. In the case of yams, where the mean size of work group is 2.5 persons, the tuber is considered harder to harvest than taro because it develops at a greater depth, and larger quantities are harvested at a single time for storage. However, as with sago-making, an important consideration in rendering assistance is undoubtedly that the service will be reciprocated either immediately or subsequently with a quantity of the foodstuff involved. Both are perceived as 'hard' work and the question of cost-benefit is therefore seriously considered in deciding whether to render assistance. The difficulty experienced in mobilising a sago-making work group when there is no widespread shortage of food is evidence of this.

The large work groups associated with the marketing of the two main subsistence crops, taro and sweet potato (4.3 and 2.6 persons [462] respectively), are to some extent misleading. In virtually all cases the marketing was done at Saiho by women, each selling her own produce. The approach to marketing these crops is very different from that of cash crops - one woman decides she will take some produce to Saiho and a number of others then decide, very much on impulse, to follow suit.

Relatively large work groups are associated with a number of cash cropping activities. This is particularly true of coffee,

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[1] In fact these activities comprise a number of distinct tasks and if we are to be consistent in our categorisation we should therefore speak of 'taro-producing' rather than isolate the several tasks involved. Then, given the type of work allocation and sequence described above, the work groups associated with taro-production approach those of sago-making and house construction. In spite of these apparent inconsistencies in the method of categorisation, the fact remains that taro-producing activities are not necessarily collaborative and they are distributed over an extended period, while collaboration is actively sought (and required) in the other cases and the activities are restricted to a much shorter time span.

[2] If a household decides to extract sago without outside assistance an immature tree is normally felled.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

461 the principal source of cash, where the returns to labour are relatively low.[1] Here families of procreation and orientation often form a single work group where parents, without cash crops of their own, are called upon to assist their children. The work groups are largest (2.9 persons) for pulping where the crude methods used are especially inefficient. The marketing of rubber involves work groups of a mean size of 1.9 persons since the product has a higher weight-value ratio than coffee and is also bulkier.

A relationship appears to exist between the 'hardness' of the work (in terms of energy expenditure and the capacity of one person to handle it) and the size of the work group. The affiliation of members of such groups is extremely varied and appears to be based largely on considerations of residence as it is exceptional for members of a Sivepe-initiated work group to be drawn from outside the village.

Apart from the activities described there is a variety of communal tasks initiated by an external agency and there are others which apparently originate elsewhere but operate through an agent within the village. Establishment of the communal cash crop garden and the pre-Christmas hunting drives both fall within this latter category and work groups exceeding twenty people were often associated with them. Of the two, the hunting drives were most successful since the type of organisation and techniques used were essentially traditional - beaters drive the game towards a long staked net where they are speared by the netsmen.

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[476] Because of relative unfamiliarity with most forms of co-operative effort, communal activities initiated by the external agencies generally prove unsuccessful. Where they are customary, as in sago-making, an immediate return against assistance rendered is frequently obtained. No such immediate or tangible returns are associated with many of the communal activities initiated by the external agencies.

128 The activity patterns of selected individuals

The preceding pages have been concerned with a strictly quantitative analysis of the behaviour of a population of 35 adults. Here closer consideration is given to six individuals, representing a range of 'types', with the object of exploring possible relationships between work and the more qualitative factors of family, status, values and aspirations.

159 554 Linton. The main material criteria used in assessing individual status are diligence in work, generosity, wealth in terms of both cash and traditional valuables (di-hambo) and abundance of yams. By all these standards Linton ranks very highly in the village.

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[1] See p.292. A

A, [See Category 433, p.292--Analyst]

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his position being acknowledged by the widest range of people. Although in no sense a 'director' of village affairs he was the last villager to receive an otohu[1] and the first to obtain any formal education.[2] His position is therefore derived from his apparent ability to encompass both the 'old' and the 'new' ways, thereby gaining the respect of most members of the community. This elevation in his status is a recent development, not evident during Rimoldi's stay in the village, and in all probability influenced by the fact that he is an adopted member of Timumu clan and only 38 years old.

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A married man with five children, he lives next door to his ageing step-father and mother giving them, as well as other older villagers, considerable gifts of food and assistance with such customary group enterprises as clearing garden sites, harvesting yams and house construction. Further, with an age mate from Saho clan, he accepted full responsibility for the organisation of the major sago-making venture during the dry season, at the request of his mother's brother. Among younger members of the village his stature is derived from extensive experience in paid employment[3] and his active interest in and responsible approach to cash-producing activities within the village.

Linton has the largest cultivated area of those surveyed and the largest holding of yams. Also, being the owner of a shotgun, an active coffee grower,[4] an OCGS shareholder and, during the survey, erecting a house of local materials under contract for Saiho hospital, his commitment to the external economy is both varied and substantial.

1

The otohu was an ornament presented to selected initiates which conferred on them important social obligations. In a discussion of the nature and purpose of the otohu Williams (1930:204-5) states: 'Adjectivally, the word seems to indicate "well-behaved" in the widest sense of the term. It was applied to a law-abiding and amenable member of society, and perhaps the nearest equivalent in our language would be "decent" or "respectable". The emphasis is certainly laid on the milder virtues rather than the more heroic. Thus a man was otohu or otohu-emho who did not quarrel, who did not beat his wife or children, who did not ill-treat his dogs and pigs, and who did not steal.... Diligence bears some part of this rather complex ideal, and so certainly does generosity....

We may conclude, therefore, that the possession of an otohu does involve a social obligation. It is an honour and a privilege bestowed by society, but it means that the recipient should settle down as a thoroughly amenable member of that society.' In Linton's case the otohu was presented at a specially arranged ceremony, apparently in acknowledgement of his upholding of traditional Orokaiva values.

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He spent a year at Isivita school prior to the second world war.

3

A total of 9½ years spent, largely in an unskilled capacity, in Port Moresby, Lae, Salamaua and elsewhere in the Northern District.

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Although without a coffee garden of his own, he has successfully asserted a claim to trees acquired by another Timumu man following the subdivision of a communal planting established about 1956. See Rimoldi 1966:83-4 for a description of this planting.

The organisation of work by households

There is very little difference between households in the total amount of time spent each man-week on all the different activities. With the exception of the widower in household 19, the range is from only 2.2 hours below to 2.9 hours above the mean of 43.5 hours per man-week. However, there are considerable differences between households in the proportions of labour input allocated to the various activities (see Tables 7:5 and 7:6). Most spend roughly comparable proportions of their time in garden clearance. Households 19 and 24 are exceptions. The former, a widower, did a considerable amount of clearing on behalf of the widow in household 18. The couple in household 24 likewise gave help in clearing and planting, to household 23 in particular.

There are wider differences in the time allocated to subsistence gardening. Households 18 and 24 spend most time in gardening, followed by household 19. Although this may partly reflect a greater amount of time required by the older people comprising these households to achieve subsistence, it is significant that 18 and 24 are also pre-eminent in the amount of garden produce disposed of each week and that the widower in household 19 puts a greater proportion of his working time than anyone else into assisting others (see Table 11:8). The head of household 18 is a widow (successively of three Inonda men) and has only permissive rights to Inonda lands. Household 24 is in a somewhat similar position, being resident because two daughters are married to Inonda men, and it seems likely that both these households strengthen their positions in the village through generosity towards others.[1] In return for his assistance, the widower receives most of his food from others and so spends little time in cooking. Three households devote less than the average amount of time to gardening. Household 23 instead spends more than the average in entrepreneurial activities and in activities connected with the external agencies; household 21 also devotes considerable time to the latter, including purchasing and church services. Apart from the widower, household 17 has the shortest working week.

The three households spending most time in gardening spend least in the other food-producing activities - fishing, hunting, gathering of forest products and sago-making. In activities demanding agility or stamina younger people are naturally more prominent. The head of household 20 is the best marksman and hunts frequently. He also helped a cross-cousin in sago-making and his wife often fishes. In fact, this household spends more time in this class of activity than

[1] Crocombe (1966:78) considers that this was the basic motive for a birthday party given by the head of household 24 in 1962.

[TEXT CONTINUED ON PAGE 143]

ancillary tasks, other tasks unrelated to the main task, cooking and washing. 461

The activity observed most frequently was forest clearance. Over twelve occasions, the main task occupied 44 per cent of the total time. Due to the intensive and exhausting nature of the work, resting and eating occupies one-quarter of the time. For the same reason, almost one-third of the time spent on sago-making is in resting. Sago-making is the most intensive of all the activities practised by Inonda people: the observed occasions have a mean duration of over eight hours, 50 per cent of which is spent on the main task of producing the starch. Subsistence gardening tasks are in general less intensive than sago-making or clearing: travelling to the place of activity accounts for a higher proportion of the time, and work on the main task and other tasks amounts to less than half the total. Resting, however, accounts for less of the total than it does with sago-making. The planting and harvesting of taro appear to involve the most intensive work in gardening.

Overall, time spent working on all tasks as opposed to time spent resting or travelling appears to be between 50 and 60 per cent of the total. There is no significant difference between cash croppers and non-cash croppers. The latter tend to spend a greater proportion of their time in travelling - perhaps because they are mostly older people. Time saved in travelling by cash croppers seems to be used as much for leisure as for productive work.

The nature and size of work groups

Most activities are carried out by individuals working alone (see Table 7:15), although husband and wife often perform separate tasks in the same garden. Tasks in food gardens are rarely performed jointly: only in harvesting yams and fencing does the mean size of work group reach even 1.5 individuals. However, certain other subsistence activities do involve larger work groups. Of these, sago-making involves the largest mean number of people, since a sago-palm contains enough food to maintain several families for some weeks and it requires intensive labour to extract the starch before it spoils. Thus, those who decide to harvest a palm almost invariably call on others for assistance.[1] Spear-fishing is often undertaken by individuals alone, but groups of men or a number of households may fish together at a particular place. The largest fishing groups occur on the rare occasions (twice during the survey) when large nets are used. At such times people from several villages (Inonda, Mosou and Ijika) may collaborate to spread the nets (one from each village) across the river, to construct temporary dams of

226 476

[1] See p.260. A A

[TEXT CONTINUED ON PAGE 157]

A, [See Category 476, p.260--Analyst]

226 branches and to drive the fish into the nets. On both occasions
476 during the survey over twenty people were involved. Operations such as these are initiated by the older men. Participation is voluntary and seems to be based on residence as much as kinship.

342 Construction of houses generally involves some collaboration in
461 erecting the timber frame and in preparing roofing sheets from sago-
476 palm leaves, but much of the construction is carried out by the householder alone. When assistance is received, it may be from a wide range of kin, including agnates, matrilateral kin and affines. The main reason for the size of work group shown as involved in construction at Inonda is the erection of the copra-drier when all the men in the village collaborated.

461 It is worthy of note that, except for fishing and sago-making,
178 all activities involving larger work groups are non-traditional activities directly associated with the monetary sector. The largest work groups occur in copra-making and the next largest in cultivation of coffee. As described above, copra-making was
[245] initiated by the entrepreneur as his own project but subsequently others combined to make it a village project. Cultivation of coffee is carried out usually by members of the household that owns a garden, sometimes assisted by other kin who have no cash crops or by young unmarried men. There is, then, a clear differentiation between traditional and post-contact activities in terms of the organisation of work groups.

The activity patterns of selected individuals (see Table 7:16)

166 Iremba. This man is unmarried, aged 21 and lives in the household of his elder brother. He reached standard V at Ururu mission school and began training as an aid post orderly at Saiho hospital, but left after eleven months, feeling that his current conditions and future prospects were not satisfactory. He then lived for some months with a relative of the same lineage at Ijika, returning to Inonda for several weeks during periods I and II and remaining permanently from late August onwards. In total, Iremba was absent for 85 days, 92 per cent of which were on visits either to his lineage brother or, for shorter periods, to other relatives. For 3 of the remaining 7 days he was sick and stayed at Habema village, 2 days were spent at a feast, 1 at a party and 1 looking for work at Popondetta.

[461] Iremba's observed activity patterns seem fairly representative of the behaviour of young
[464] unmarried men in the area. Probably his attitudes are also quite widely shared: although he frequently helps his brother and other kin in Inonda and other villages in subsistence tasks and cash cropping and will almost certainly settle in the village when he marries,

249 476 While efforts have been and continue to be made to organise communal cash cropping, based initially on the expatriate assumption that voluntary co-operative effort is a feature of the culture and an instrument for increasing productivity, they largely fail. Although the communal rubber planting in Sivepe continues to be worked, this is not a reflection of good management but rather of the intrinsic hardiness of a tree which has been planted in its natural habitat, the forest, and is subject to the depredations of 461 few diseases or pests. In Sivepe, work groups in cash cropping are 184 no larger than in subsistence, although in Inonda they are substantially bigger, perhaps on account of the influential role of the entrepreneur. The point remains that work groups incorporating individuals other than members of an individual's families of procreation and orientation are not typical of subsistence production in this area, with the exception of those activities which physically require the participation of a large number of people as, for instance, sago-making.

433 184 166 464 In both communities the choice appears to lie between subsistence production plus peripheral commercial activities on the one hand and migration out in search of full-time employment on the other. In Sivepe the latter course is frequently taken, not only by single men, but also by some with dependents, who remain in the village in the care of parents. With 37.8 per cent of the potential adult male labour force absent and a number of dependents staying behind, a considerable burden is placed on the remaining residents in Sivepe. Only 25 per cent are absent at Inonda and no dependents have been left in the village. Although the distinction is not manifested directly in the length of the activity week in the two villages, it probably accounts for the greater incidence of temporary absences recorded in the latter - 17 per cent of total available labour time compared with 6 per cent in Sivepe - in that the slightly higher proportion of adult males to total population makes the subsistence economy less restrictive on individual mobility.

433 While activity patterns suggest that cash-producing activities are added to the subsistence pattern with little apparent stress, the question does arise as to whether <u>given the existing technology, socio-economic matrix and level of productivity</u> the communities have already expanded their commercial activities to the optimum level. There is no evidence that the expansion of cash cropping and paid work has resulted in any commensurate contraction in the time devoted to non-productive activities. The data confirm Fisk's general hypothesis (1962) concerning the availability of surplus labour. Although the Orokaiva are, by any objective standards, a reasonably active people who spend little time on informal social and ceremonial activities associated with the subsistence sector, and although, perforce, activity is restricted essentially to the daylight hours, there are some 6 hours per man-day remaining apparently unutilised. At present this time is distributed between resting, eating meals and informal socialising within the village.

181 In his discussion of Orokaiva morality, Williams (1930:322) states that 'The group...contents itself with two main requirements - (i) material plenty, and (ii) internal concord. ...each virtue implies agent and reagent'. Three 'moral factors' are identified as working positively towards the achievement of this ideal: industry (the manifestations of which have been treated in Part II), liberality and helpfulness. A concern for mutual aid operates among members of the 'sympathy group' and is therefore only effective over a socially and geographically restricted area. Being an acephalous society, it is based on a reciprocal system whereby a prestation voluntarily made carries with it certain obligations and expectations.

431 In traditional Orokaiva society several types of prestations were identified, according to the scale, circumstance and nature of the obligation incurred, and many of them are still practised, albeit often in an attenuated form. The most common is termed osisa - the informal daily distribution of small quantities of cooked food within the village. No account is kept of the volume involved but equal participation by all households is expected, the only exceptions being the aged and the single men, with the latter being called upon to reciprocate with a labour service from time to time. Such distributions are primarily the women's responsibility. However the casual gifts of areca and lime, made by the men, fall within the same category.

796 The term hande, freely translated as 'generous', is applied more specifically to ceremonial distributions and feasts organised by the men.[1] They are normally characterised by the participation of agnates and affines from other villages and by the strict attention paid to the apportionment of gifts according to considerations of kinship, status and specific obligations being acknowledged.

626 Visoare are challenge feasts of an avowedly competitive and hostile nature made in connection with unresolved disputes such as encroachment on land, or the stealing and unauthorised killing of pigs. They generally occur at the inter-, but neighbouring, clan level and incorporate the powerful sanction of shame for the individual or group challenged. The procedure is for the party levelling the initial accusation to hold a feast, invite the other, make a gift of food to them, and then challenge them publicly to reciprocate with a feast of equivalent scale. A failure to match it can only result in humiliation.

431 The type of gift made as a gesture of friendship or appreciation, but not normally reciprocated, is known as umbare. Such gifts are

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[1] See p.26 for a description of the circumstances under which feasts are arranged.

A.[See Category 574, p.26--Analyn]

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The exchange of labour services

Table 11:15 presents the detailed composition of labour services given and received by the Inonda people. These services have been discussed in general,[1] particularly with reference to their seasonality. It is worth emphasising here the comparatively small extent of mutual collaboration in work. With some 17,000 working hours available (on the arbitrary basis of 6 man-hours for each of the 2,782 man-days on which exchange data were collected), less than 450 hours were actually spent in assisting others, either in or outside the village, although a few more hours were spent working together in communal tasks such as building the copra drier and chapel.

As was pointed out, 46 per cent of the acquisitions of labour assistance in subsistence tasks is in sago-making. There are two [222] main reasons for this. Firstly, it requires several days of intensive and exhausting labour in order to beat the starchy pith from the felled trunk before it spoils in the hot, moist climate and before wild pigs can get at the opened trunk at night. Secondly, a single tree provides enough food (supplemented by garden produce) to support several families for some weeks and the produce of a [462] single tree is distributed by the rightholder(s) particularly to those who assist in its preparation. Due to the exhausting nature of the task, men provide the bulk of the assistance. There is no clear pattern of kinship groups operating: assistance may be requested and received from the immediate family or from among patrilateral, matrilateral and affinal kin. Assistance received in sago-making exceeds disposals by 93.4 hours, reflecting an inflow from other villages. This was received mostly from two young Sewa men, who also contributed over one-third of the total assistance received in house construction.

Tasks involved in the construction of houses account for about 10 per cent of disposals and 15 per cent of acquisitions of all subsistence services. This is undoubtedly higher than it would otherwise be owing to the reconstruction of the village. Even so, the amount of assistance given in the process of re-building is probably understated, as much occurred outside the recording periods. The bulk of the construction services fell into periods [342] I and II and the move was completed by the beginning of period III. One-third of the assistance in construction was in making roof- [824] sheets from sago leaves.

About one-quarter of both acquisitions and disposals of subsistence services is in garden tasks - mainly fencing, clearing and planting taro. In most of these there is an excess of acquisitions,

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[1] See pp.235-44.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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Table 11:15

Inconda: the type and volume of labour services transacted during each recording period
(hours)

	Period I (12 weeks)	Period II (6 weeks)	Period III (8 weeks)	Total (26 weeks)
Acquisition				
Clearing	4.0	12.5	19.8	36.3
Fencing	10.0	34.4	-	44.4
Planting	10.1	14.0	22.9	47.0
Weeding	3.0	4.2	2.2	9.4
Harvesting and collecting forest products	-	3.0	7.6	10.6
Sago-making	-	263.7	-	263.7
Hunting and butchering	35.4	2.0	7.3	44.7
Construction	17.3	72.1	3.4	92.8
Household	8.8	-	21.7	30.5
Sub-total: subsistence	88.6	405.9	84.9	579.4
Coffee cultivation	10.0	17.7	6.5	34.2
Cocoa cultivation	-	-	-	-
Marketing	0.2	6.0	1.2	7.4
Purchasing	-	-	4.2	4.2
Entrepreneurial, incl. storework	7.0	-	-	7.0
Sub-total: cash	17.2	23.7	11.9	52.8
Total	105.8	429.6	96.8	632.2
Disposal				
Clearing	12.0	0.5	4.0	16.5
Fencing	10.0	22.4	-	32.4
Planting	8.0	4.5	18.1	30.6
Weeding	3.0	10.2	-	13.2
Harvesting and collecting forest products	-	3.0	2.5	5.5
Sago-making	-	170.3	-	170.3
Hunting and butchering	61.4	2.0	1.3	64.7
Construction	17.3	19.7	3.4	40.4
Household	4.6	-	8.6	13.2
Sub-total: subsistence	116.3	232.6	37.9	386.8
Coffee cultivation	10.0	6.5	15.2	31.7
Cocoa cultivation	11.0	-	-	11.0
Marketing	0.2	-	-	0.2
Purchasing	-	3.3	5.4	8.7
Entrepreneurial, incl. storework	1.5	-	-	1.5
Sub-total: cash	22.7	9.8	20.6	53.1
Total	139.0	242.4	58.5	439.9

437 476 again reflecting assistance given by young people from outside the village. In addition to the two Sewa men, whose help was requested by the entrepreneur, a young married couple came from Kendata village to assist household 17. These were the children of the sister of the household head's wife, who is also from Kendata.

Assistance in hunting and butchering of game shows marked seasonality, falling almost entirely into period I. This reflects the concentration of feasting in the same period, when men will request the help of those noted for their skill in hunting to provide the necessary meat.

Assistance in household tasks such as collecting water and cooking is mostly given by visitors, particularly women, from outside the village (see Table 11:16). The widow, however, received considerable help from two villagers when she made about 20 tapa cloths. Household assistance accounts for only 5 per cent of the subsistence services.

437 Most cash sector services are given in establishing or tending commercial crops, particularly the pruning and weeding of coffee gardens, which accounts for 55 per cent of the time disposed and 39 per cent of the time acquired. One man received assistance from close kin (his mother and sister) in clearing and staking out a new coffee garden.[1] One-fifth of the labour given was in weeding cocoa on a settlement block across the Girua River, reflecting an obligation incurred by one householder who had married the settler's step-daughter. Assistance received by the trade store owner in operating his store and in marketing other produce accounts for most of the other services in the cash sector. Labour assistance in the cash sector accounts for only 12 per cent of all services given, but assistance in the main task, maintenance of coffee, [433] exceeds that given in many subsistence operations and equals the amount given in hunting services. Thus, although the cash sector remains in some ways (as in the circulation of cash itself) peripheral to the village economy, it is integrated to the extent that it provides a recognised channel for meeting obligations through labour services.[2] In some cases, the receipt of assistance requires a return gift of cash, such assistance being one of the few sources of cash income available for old people or for women. In other cases, as with the settler's son-in-law, assistance in the cash sector is a means of meeting a traditional obligation. In sum,

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[1] See p.246.

[584] [2] Crocombe and Hogbin (1963:81, footnote), referring to assistance given to the Girua block settler by his son-in-law, point out that traditionally a prospective groom would assist his father-in-law with house-building or garden clearance.

[TEXT CONTINUED ON PAGE 584]

operations in the cash sector are conducted, in part at least, according to traditional attitudes.

Table 11:16 gives details of labour assistance received from and given to non-residents. We have already referred to the low degree of collaboration in labour practised by the Inonda people and this table shows that 40 per cent of all the services received is from non-residents - mainly young people invited by specific Inonda households to assist either in specific short-term tasks such as house-construction and sago-making or in general tasks such as gardening and household chores. Little is contributed by people from nearby villages compared with that given by those from more distant ones who come to live in Inonda for several days or weeks. The young men who came to assist household 23 also helped household 16 in sago-making. Most of the labour assistance given by households 16 and 17 is to non-residents, primarily to kin at Ijika and on the Girua settlement block, and it included work on garden clearance, hunting and maintenance of coffee and cocoa trees. Almost half of that in activities relating to the cash sector is given to non-residents, but less than one-sixth of subsistence sector services goes to non-residents.

Assistance by non-residents in sago-making accounts for 41 per cent of all services received from them and it forms one-fifth of all the labour invested in the task. Non-residents also account for 6 per cent of the total labour input in construction of houses, but their contribution in other tasks is quantitatively insignificant although it may be of considerable value as, for instance, in establishing a garden quickly to benefit from favourable weather conditions. Thus, households which have suitable kinship connections and are in a position to provide hospitality may derive considerable benefit by inviting young kinsmen to stay with them. A further implication is that the presence of young men who are not tied by material requirements to their village of origin means that there is, to some extent, a flexible reserve of labour which can be drawn upon at short notice by people over a considerable area.

The exchange of goods and services by sex

The breakdown of the totals for the whole survey according to sex reveals that women are responsible for the bulk of the transactions of subsistence items. Since they do much of the harvesting[1] and practically all the cooking, this is to be expected. Where items are exchanged uncooked, the men's proportion, of disposals at least, tends to be higher than otherwise; this is so, for instance, with bananas, coconut, sugar-cane and areca and it may reflect a

[1] See pp.148-9.

TEXT CONTINUED ON PAGE 265

Work patterns

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Traditionally among the Yega members of one lineage worked together to clear the forest in preparation for planting food gardens. The cleared patch was subdivided among those who helped with the work. Planting and caring for the growing crop was the responsibility of the individual and his family. This traditional pattern was modified when clearing rain forest for the Yega Scheme when the able-bodied men of all lineages worked together. The cleared blocks were then allocated by ballot and the individual concerned was responsible for planting shade trees, laying out a seed bed, planting out the young cocoa trees, 'lifting' shade as the trees increased in size, and keeping down the weed growth. In most instances, relatives who helped the blockholder with these tasks were compensated. For example, the cocoa pickings on 29 July (see Table 1) by Aubrey and John Livingstone were made from the same blocks as those by Ethelbert and Livingstone on 1 July. Aubrey is a member of the same lineage as Ethelbert and John Livingstone is a son of Livingstone. As part payment for work done previously on the blocks these two men were permitted by the blockholders to harvest one month's cocoa production. Other relatives who had helped with the work would be given a similar privilege.

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Late in 1962 and early in 1963 many Yega moved their homes to the new villages of Ononda and Binjapada (see Table 5) [A], the reason given in every case being to live closer to their cash-crop areas. In January 1963, however, the move had not resulted in a significant increase in the amount of time spent on the cocoa blocks.[1] This was because of the time spent building their new houses. Only one man out of 12 spent any time working on his cocoa block during the period 14-28 January. The remainder divided their time about equally between building and work in their food gardens, which were scattered between the coast and the new cocoa blocks.

242 245 469 476 (614)

Several attempts were made to introduce communal labour into the production of cocoa. The first was organized by a blockholder, Wilfred Upena, early in 1963. He and 17 others belonging to five different Yega clans agreed to do a day's communal work clearing rain forest to extend each man's block in turn. As the originator of the scheme, Wilfred's turn was first and an acre of rain forest was cleared on his block on the first day. But on my return a year later no further communal work had been done by the group.

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[1] An unsupervised record of daily work was kept by a man living at Ononda from 14.1.63 to 28.1.63, but it was of only limited value.

A. [For Table 5, see Category 166, p. 43--Analyst]

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(614)

The second attempt at communal labour was by the men of Kurou clan, who agreed to work on specified days on the two cocoa blocks allocated to Kurou members. This scheme was initiated in mid-1963, but only two days' work was done.

The third attempt at communal labour, in July-August 1964, owed its origin to a suggestion made by the Yega councillor in the newly-formed Oro Bay Local Government Council that the Yega should perform communal work on the cocoa blocks on Tuesday each week. The work to be performed was only cutting grass and clearing additional forest, not harvesting cocoa. The first two work periods under this system were observed and the workers counted by a Papuan assistant. The results were remarkable. On both occasions over 60 adults worked for times ranging from 3 to 8¼ hours, with a mean time on the two days of 6¼ and 8 hours respectively. No matter what time people started work, 'knock-off' time was by whistle at 4.30 p.m.

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Cocoa was harvested by individuals. Details of the work times of two men harvesting cocoa for sale to the fermentary representative were observed as follows:

Ethelbert, 1.7.64 (assisted by son aged 6 and daughter aged 8)

Walk from village to cocoa block	25 minutes
Harvest 205 cocoa pods and collect in one spot	55 minutes
Remove beans from pods	50 minutes
Await arrival of fermentary vehicle, weigh produce, await payment	1 hr 35 minutes
Total	3 hrs 45 minutes

Aubrey, 29.7.64 (unassisted)

Walk from village to cocoa blocks (including visit to friend on way)	45 minutes
Harvest 103 cocoa pods	1 hr
Remove beans from pods	40 minutes
Await arrival of vehicle, weigh produce, await payment	2 hrs 10 minutes
Total	4 hrs 35 minutes

(434)

The cash reward for labour performed may be seen in Table 1. Ethelbert received $1.12 while Aubrey received $0.68.

245 476 Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 (242) [484] [487] As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 36 166 The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. However, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 245 178 423 The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476] [464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

245 423 519 602 (continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

Cash crops

All four entrepreneurs were familiar with the very small scale cash-cropping which had been undertaken in their villages for many years, but because of the insignificant returns received from activity of this kind they wanted to avoid it. In discussions with the writer, they all referred frequently to their aim to plant on a large scale and to operate their plantations the way European planters did. The main differences were that the entrepreneurs were without capital and that they were prepared, at least until the enterprise was established, to undertake manual labour themselves.

The entrepreneurs A, B and C established their enterprises with the help of their wives and of certain close junior kinsmen. Each has occasionally hired labour, but none has been able to keep the workers for more than a few months (though one man worked for A for three years). The crops grown (coffee, cocoa and copra) are all labour intensive. Moreover, A and B had to clear heavy forest and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

B entered into an agreement with four men of two villages a few miles from his own whereby they all helped each other clear separate coffee plots in 1952. As B's was much larger than the others he agreed to provide a small manual coffee pulping machine which all four could use. There was some dissatisfaction by those with small plots with the proportionate benefits derived from the mutual help arrangement, and when B established his cocoa plot in 1959 only he and his brother worked on it.

What rights do the close kin acquire in the crops they have helped to establish? Orokaiva people frequently assist one another to clear land for gardens and this involves no obligation beyond reciprocal help. But planting, husbandry and harvesting were traditionally done by the household and were thus closely associated with rights to the crop. A's enterprise began as a joint venture with his brothers, though the initiative was provided by A. It was not until after World War II that he encouraged and assisted each of his brothers to plant their own individual coffee gardens. A's gardens were then to be for himself and his sons jointly.

463 to be trading within their own village and twenty-six outside their
472 village.[1] In eighteen cases store location is not specified. The
366 only indication of success provided by the licence is the period of operation for each store. This index is not wholly reliable, because a store licence is sometimes renewed when the store is no longer in operation but is intended to be re-opened.[2]

Table 10

Store location and years of operation of all indigenous entrepreneurs in the Northern District*

Store location	Years of operation by trading licences 1	2	3	4	5	6	Total
Within own village	3	7	11	-	-	2	23
Outside own village	3	4	8	3	4	4	26
No information on location	11	5	-	2	-	-	18
Total	17	16	19	5	4	6	67

[127] * This information was obtained from government records which are not available before 1960.

Only 9 per cent of those whose stores are located within the village have held a trading licence for more than three years, compared to a corresponding figure of 42 per cent for those who trade outside the village. This conclusion must be tentative as trading licences are an unreliable index of success, but it agrees with the evidence of the present study and with the data of Crocombe (1967:21). Both tables suggest that trading within one's own village may have an inhibiting effect on individual commercial activity.

463 Labour. The Orokaiva commonly enlist the help of relatives to
472 establish and maintain cash crops. These relatives are rarely regarded as paid labourers, and are compensated with random gifts
476 of cash, store goods, an undefined share in the profits of the cash crop or a wide variety of services such as help in farm work, bride price, etc. Such obligations are not specific as to volume, value or time, and even when met can be used for further credit.

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[1] The number actually within the village is considerably less as those trading and living within about a mile of their village are usually recorded as being within the village.

[2] For example, subjects A, B, C and D, who have all closed down their stores, still retain current trading licences.

423 This has been documented by recent research carried out in three
614 Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361] Under the traditional Orokaiva tenure system most individuals
[241] have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

423 Clearing of bushland is often a community affair, with the
311 lineage and sometimes the whole sub-clan co-operating, but planting
241 is organised by individual households, with some reciprocal assist-
476 ance from other households for specific tasks at irregular intervals.

Land use

241 The Orokaiva grow their crops using a system of bush fallow
311 rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361 The Orokaiva live in villages but each nuclear family usually
[592] occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual
[621] protection (Williams 1928:155). However, in 1928 Williams noted a
[614] growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Allocation of blocks

657 The principles applied by the Ombi-Tara people in the allocation
423 of blocks are not clear, but it appears that men tried to get blocks
425 on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of Kusi clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of Mumu clan was given a block on Kusi land, reportedly because of a shortage of Mumu land. The Kusi clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of Mumu clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 Blockholders began clearing the portion of their blocks nearest
●476 the access road soon after the preliminary survey of July-August
[311] 1964. For clearing the villagers worked in several groups, with
[654] each group spending one or two days on the block of each of its members. The first one year old C.C.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

423 had rights.[1] Conversion has caused a redistribution of land rights,
314 with some people losing and others gaining land. Several men who
361 claimed they had less land after conversion than before said that
829 twenty acres was ample for their needs and that they were pleased to give up some land to help their co-villagers.

657 There are indications that conversion at Ombi-Tara has facili-
423 tated co-operation between villagers who are planting cash crops.
182 Previously any man who wished to plant cash crops had to work with little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
423 Tara bank account to purchase equipment for the bush rubber
621 processing unit, and by joint discussions on the nature of the new tenure system. Interclan co-operation is seen in the leader
182 of the Kusi clan granting permission for the allocation of a block on Kusi land to a man of Mumu clan. Interpersonal co-operation is illustrated by the apparent willingness of large landholders to give up all previously held land rights without receiving any compensation, in order to enable all to take part equally in the scheme.

657 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
182 tioned on the radio and are happy that others ('people all over Papua-New Guinea') should know of their experiment. When two
186 Australian friends of mine paid a short visit to Ombi they were asked with expectant pride if they had heard of the Ombi-Tara scheme in Australia. The leader of the Mumu clan said, 'We want Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
177 title after the visit of the Agricultural Officer in late 1963. No one reported hearing first about conversion through Local Government Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
[182] trade union, his friendly or benefit society, his slate club and his orphanage; it takes the place for him of health insurance, and if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
571 be continuing at Ombi-Tara since tenure conversion was introduced.
179 Blocks were cleared by kin groups in accordance with custom. Two men mentioned that there had been an arrangement whereby if a
[689] person worked on the block of another man but the second man did not reciprocate, he would have to pay the first man 80 cents. However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
657 tial redistribution and equalisation of right holdings. Whether obligation to the 'donors' will be established as a result is a matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below. A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 The five work on their blocks in the later afternoons and on week-
423 ends and their kinsmen help to clear their blocks while they are
476 absent on road maintenance work.

Some future problems

657 While the long-run consequences of current alterations in land
423 tenure are always difficult to foresee, some indications of future
179 difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully
[614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.A

A [See Category 423--Analyst]

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

602 Kinship groups are of major importance in the functioning of village society in New [619] Guinea. Every individual is a member not [614] only of a parish but also of groups of closer [613] kin, a clan, and maybe a lineage. Lacking any system of payment in cash for services ren-602 dered, the villager obtains the assistance of his 464 relatives for heavy work such as the felling of big trees to make a swidden, dragging a canoe 476 log to the beach, or making a long seine fish-ing net. Obligations thus incurred are met either by reciprocating when asked or by making a gift. The kinship group provides 602 social stability and in practice the pattern of 311 land use is frequently decided by the senior 241 members of the group. The planting of food crops by any member, even on land to which he does not control cultivation rights, causes no concern because rights to temporary usage may be easily granted, but the planting of tree crops, which may remain in the ground from thirty to eighty years, is a different matter. Planting tree crops is tantamount to alienating the land for at least a generation and very often some members, at least, of the kinship group object to such long-term use. Even if they do agree to an individual member planting tree crops, there is almost always the assumption that he must share any profit he makes with other members of the group. Individuals who have planted cash crops under these conditions generally become discouraged when they see the fruits of their labours being reaped by kinsmen who contribute little or nothing towards production.

659 In its attempts to stimulate production of 423 cash crops by indigenes, the Administration 177 has approved a series of land tenure laws, the last and most radical of which was passed in 1964 providing for the registration by indigenes of individual freehold title to land: a measure designed eventually to establish a European system of land tenure throughout the Territory. In the meantime, such measures, by pitting traditionally conservative [578] people against the products of modern Western education, are a cause of internal conflict within indigenous society.

632 The establishment of towns, unknown be-177 fore the coming of Europeans, has forced an even more drastic adaptation than have the

[P.3-A]

LAND TENURE

614 423 Each clan controls some areas of mature rain forest, some of secondary forest, and some of grassland. Only the secondary forest is regarded as valuable garden land. The mature rain forest is potential garden land of the future, and grassland is unimportant, except for hunting. Clan land-holdings are fragmented within the confines of Yega territory. This pattern can be explained partly by the social system of land use and partly by the history of Yega expansion inland from the coast. The
613 476 423 members of different lineages belonging to the same clan normally combine to clear areas of rain forest by communal labour. When the work is completed the land is divided among the lineages which helped clear it. This is
614 423 [613] the origin of the pattern of large continuous strips of land belonging to one clan, but sub-divided amongst the sub-clans and lineages of that clan as shown in Fig. 3. The commonly elongated shape of clan holdings is the result of continuous clearing in one direction by a group of kinsmen talking and joking as they worked and thus keeping close together. The small enclaves of land shown
614 602 423 within the general Kurou clan area but belonging to other clans (Fig. 5) may be explained by affinal relationships. At various times the Kurou men cutting down the forest gave permission to some men of other clans, who had married Kurou women, to work with them. These affinal kinsmen thus acquired
[428] cultivation rights to small pieces of land, which have been inherited by their descendents. The first areas cleared were close to the coast; as population increased and more land was required, the inland forests were cut down in the manner described above.

241 423 613 [614] Rights to cultivate land are controlled not by the clans but by the lineages; in each lineage the oldest member living in the parish territory has the authority to say which land shall be cleared for gardens and how the work is to be organized; fragmentation is thus reduced. In practice, however, many lineages are numerically small and the sub-clan head coordinates the work of members of the lineages

[P.7-A]

He has now cleared bush and planted gardens all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. The trees began to bear in mid-1964, at a time when, unfortunately, the world market was depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two cents per pound. The discouraging effect of such prices was reflected in the low production of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

a) The use of communal labour to clear the rain forest and the subdivision of the area among those who helped.

b) The absence of any documentary record of the transference of cultivation rights to individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

Aspects which have little precedent in traditional custom but result rather from the acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

625 excursions. This was, however, an experience of short duration and,
731 once back in Sivepo, the village constable reverted to his former role, as described above. In 1956, all village constables handed back to the government their handcuffs, the symbol of their authority, and the Local Government Councils took over.

[685] With regard to interpersonal relations, the evacuation set up
[571] a mutual distrust due to the removal of certain social controls. Theft is comparatively uncommon in Orokaiva villages, but this is because property is extremely well-guarded and everyone in the village is constantly under observation by other villagers. The idea of villages being left unguarded was repugnant to Orokaiva, and fear of prowling had to be countered by strict control on the part of village constables over anyone entering the restricted area. I could find no evidence of a change in interpersonal relations beyond the period of evacuation.

476 The Orokaiva are not often observed to work in groups; from
571 the relatively acephalous structure it may already be inferred that they do not have regular work leaders controlling groups. Most gardening is done by each extended family separately; house building is done by the prospective occupants with the help of some individuals who feel an obligation, mostly a brother or brother-in-law. Even at feasts, there is a minimum of truly communal labour: the food is supplied by individuals who deliver it to the display platform and it is only the dancing, the ceremonial and a few minor construction tasks that may be communal. There are in Sivepo two yam gardens where work is communal; these are in sharp contrast to all other garden work. Yet people readily gather for common efforts which have a festive and ceremonial nature or enterprises which arouse an episodic enthusiasm. Examples are the communal fishing and hunting expeditions, projects such as the mission hospital or the marking of the ward boundary.

Even during these communal episodes, the tendency is for each small group to perform a certain task separately, though contemporaneously. A hunting party splits up into family groups who do not meet again until the hunt is over. In fishing each group has its own spot. Similarly in the building of new Sivepo, there was little that was overtly communal, as each small group was working on a house for themselves or a close kinsman. Nonetheless, one would be wrong to
[342] describe this pattern as Individualistic. After all, every house was
[177] in the same style and of the same size--and this was not wholly a "traditional" style; it was a style introducing new materials and an increase in size of about 50%. When such a change is made by everybody who builds a new house, this indicates that the group is strongly bound by collective decisions.

177 Unwittingly, the Australian government has tended to make the
654 Orokaiva more oriented towards group work than he was before. Road
571 work, the compulsory planting of rubber trees, compulsory resettlement in larger villages--all these added to the volume of group work while the volume of individual work remained constant within the villages.

The rubber plantings followed a quota established for each village; in practise, a village man would make one of his garden plots available to the community at large and all the village trees would be planted there. This would be a communal work project. In accordance with Orokaiva tradition, however, the product of these rubber trees would be individually appropriated, each man being allowed to collect a limited quantity of rubber for himself and market it. The tasks of building the mission station and maintaining it further added to the amount of group work required. Men who took jobs on plantations once more found themselves in a group work situation which formed a contrast with the earlier tradition of individual effort.

It is paradoxical that the Australians, after first encouraging this group orientation, soon found themselves fighting against it, in the belief that they were face to face with that dangerous phenomenon "communism." The immediate post-war period, up to the time of the eruption, was the time when an ideologically based cooperative movement took root in the Northern District. This movement, which was centred on Gona, has been well described in general terms by Dakeyne (1966). It was the direct result of the work of two Anglican clergymen, Revs. Benson and Clint, who preached the virtues of cooperatives, and encouraged the cultivation of a great many village plots of rice and peanuts between the years 1947-1951. Dakeyne reports: "Rev. Flint was insistent that Christian ritual be associated with co-operative action. Educational and committee meetings always closed with a special prayer, there were church services at which tools were blessed and newly planted seed was blessed in the gardens. This aspect of the cooperative movement was regarded with some apprehension by Administration officers who felt it could be misunderstood by the Papuans and possibly lead to the development of a cargo cult. There was some evidence to suggest that a cult did in fact begin." (1966: 60)

The evidence, which Dakeyne does not cite, is interesting enough to be worth a brief mention. Kleekham, the agricultural officer for the coastal area at that time, reports in a memorandum (Kleekham, n.d.) that leaders of the movement were collecting taxes secretly and that "some mystical element was involved" in rice marketing. Kleekham had a huller and was willing to hull rice for growers' consumption or buy it for cash, but the people withheld their produce. He thought that this aloofness was due to the growers' belief "that the formation of and participation in cooperatives would--magically or mystically--in short time raise the native to the status of the European in all respects."

In some form, this movement reached both Sivepa and Inonda. At Sivepa, one man made a plot available where people could "cooperatively" grow rice. A deacon stationed at Sasembata, but a member of the Yega tribe where the movement had its origin, blessed the seeds and (according to my informant, allocated a section of the field to different individuals. The rice was hulled by the Administration's agriculture officer at Wreata and each man took his own rice back home, giving a

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

is the contemporary case where money replaces traditional valuables. Is this money a 'use value'? Anthropologists have often analyzed it as such and not without some justification; the Orokaiva for instance present brideprice banknotes tied one by one to a tall sapling carried aloft by the donor and thus transported to the wifegiver. After presentation it is often stored in wait for other similar occasions. The fact is, however, that eventually this treasure is converted into exchange values. Furthermore, it owes its status as a valuable to its potential exchange value. It is therefore more easily accounted for in the preset four-system method of analysis as will appear later.

The same remark may be made in respect of labour assistance between households which is normally given without payments except for a meal at the end of the day. If, however, the service is given in connection with work for which the person assisted will eventually get paid, then the service falls within a different category and must be paid for. The same rule applies to the granting of land useholds for which no rent is ever demanded if the land produces (only) use values, but the situation changes when it produces exchange values. Use value is therefore a concept determining Orokaiva behaviour.

Finally, it is as true of the Orokaiva as of the ancient Greeks that conflict and war (*isoro*) did not have a necessarily negative connotation connotation. They might be bad or good according to circumstances. War, sorcery and other forms of negative reciprocity are part of this mode of production; they cannot be equated to 'alienation'. There is increasing evidence that Levi-Strauss (1943) was correct in viewing war in these societies as a modality of interdependence.

To sum up, the Orokaiva had a basic classification of *pure* as between subsistence and feasting. An inspection of the crop by the feast-giver was needed to let crops pass from the subsistence to the feasting category. (It was not done if the harvest was insufficient.) The term *pure ari*, whatever its customary translation into English, was never used to denote any kind of effectiveness in ensuring a food supply. In case of garden failure, people did not ascribe it to neglectful *pure ari* but rather to neglectful *simbari*. It is the demigods of the various crops and the ancestors who do the actual producing in the garden, and all that is expected of man is to clear, to plant and to protect against magical and technical dangers. Watchfulness is the key; toil is a consequence. A flawless garden testifies to watchfulness in the first instance; to physical prowess also, but only in the second instance. In this respect i.e. the technical as well as the magical watchfulness, *pure ari* is intermediate between the Greek concepts of ΕΡΓΟΝ and ΤΕΧΝΗ.

Cargo deities are renewed for each movement; in all cases their return to earth would not only bring the wealth but also a new moral order. They would banish strife, indeed brotherhood between tribes is a condition of their return. This idea existed in the Northern Province of Papua New Guinea as early as the Taro movement of 1914 (Williams 1928). The work to be done is ritual work for which the design (*ove*) is laid down by the prophet of the cult. The form of *simbari* required here has to do with certain ritual places where the miraculous return might take place – among the Orokaiva, often graveyards. As for the cargo itself, the correct term is *hande*, i.e. generous sharing out of the treasure that has previously remained hidden from the New Guineans.

All these concepts will seem marginal until one sees their implications for everyday events. To this end, let us consider the position of money as *hande*. Most anthropologists have treated ceremonial money prestations as simply equivalent to traditional valuables. But is it really? First of all, it is common knowledge that traditional valuables are no longer acceptable as a substitute for money. This has sometimes been interpreted as a purely secular liking for money, which to a westerner seems so plausible that he does not see the need for explanation. If the money is presented as a money tree, this again can be explained away as substitution within a traditional idiom.

When I discussed savings societies, I expected to be given an explanation in terms of practical spending projects or other economic considerations but was given a political argument instead. It was to equal the power of the Europeans, so I was told. Again, a friend was presented with a dollar to be taken back with him to New Zealand. He should put it in the bank there, so he was told, and then it would multiply a thousandfold. On an apparently quite different topic, wages, I was told that the wealth created by them exceeded by far what they were given as pay.

It is for this reason that Orokaiva are exceedingly interested in 'business', both cooperative and individual. I have personally observed a copra cooperative and several trade store and truck projects, both cooperative and individual. Newton (1978), in a village close to the ones I know, describes in much detail six trade stores, four truck ventures and a cattle project, which represents a great deal of activity for one small village over a six-months period. Several of these projects were cooperative. All of them were failures. The fact that the ventures all fail does not stop people from repeating the experience year after year.

Let us now consider in detail one of the events described by

27: Schwimmer E-5 (1966-1970) 1979 OJ23 Orokaiva OJ23

Newton. She points out that though, in general, people help each other without expecting payment in money, cash must be paid for activities where the employer expects to make a profit, i.e. where he is engaged in 'business'. There was a Youth Group who offered themselves for labour contracts but nobody "hired the group to build a house – a subsistence activity". Labour was "treated as a commodity" and used only to create exchange values.

Now, Newton suggests this was because such money-making "was seen as a corporate action and necessitated profit sharing". Thus, children were paid if they carried cash crops to market. They were, however, compensated according to age, rather than according to time and labour input. "Eldest sons and daughters received a large portion, as might senior shareholders in a family company."

Thus, people were doing exactly the same labour in the village as they were paid for outside. Outside, this labour was alienating because workers had no control over the product of their labour. In the village businesses, they did share control of the product. But, from the pay rates quoted by Newton, it is clear that the 'business' could never afford the rates allowed. Why this perpetual disproportion between the small yield and the large distribution to shareholders?

The common pattern in all the data I have quoted lies in the miraculous increase of which money is thought to be capable once it has been subjected to certain ritual practices which the Orokaiva call 'business'. These are rituals which work when practised on a taro shoot – it swells, it multiplies. Ever since the taro cult, taro is the model for multiplication.

But the problem thus posed is insoluble. How, indeed, could these businesses prosper? Only by paying the workers less, by giving no credit, by ensuring that one takes more money from the brothers in the village than they ever get back. Only, in fact, by their alienation. There are so few of them; they have so little – one must be greedy indeed to survive in those villages in business. But alienation is not part of their project. They want the businesses to succeed without alienation. It is in this that they are a religious rather than economic practice.

Thus it is not from ignorance that they fail. Furthermore, it is only the White observers and social scientists who see anything tragic in these failures. If the Orokaiva thought them tragic, they would stop setting them up again and again. Miss Newton rightly comments that you gain status even by, and especially by failing. Your business dies; its limbs or assets are spread among the multitude and increase exceedingly. It is a religious practice.[27]